

Workshop on Synergy of 21st Century High-Pressure Science and Technology



Advanced Photon Source,
Argonne National Laboratory
April 29 - May 1, 2006

*Adjunct workshop with 2006 ANL
Users Meeting*

During the past few years, we have witnessed an unprecedented surge in high-pressure discoveries as a result of the development of new high-pressure instrumentation and analytical probes. Far greater potential is now apparent if we can create the next generation “synergetic consortium” to integrate state-of-the-art high-pressure techniques, facilities, and probes, and make them readily accessible to multidisciplinary high-pressure scientists. This will tap into the immense capabilities at national facilities and research centers that have only just begun to be utilized by the high-pressure community with the existing infrastructure. The workshop will provide a forum to review the status of U. S. high-pressure research and to identify future grand challenges. As the name indicates, the workshop will emphasize the synergy and interdisciplinary nature of multiple subfields of high-pressure science and technology. Participants will be encouraged to present forward-looking scientific vision. A few thrust areas are listed below:

*Integrated high pressure science
Dense condensed-matter physics
Chemical bonding under compression
High-pressure materials research
High-pressure petrology and mineralogy
Deep Earth geochemistry
Mission to the Earth's core
High pressure seismology and elasticity
Biological and organic systems under pressures*

Co-Organizers:

Ho-kwang Mao, Geophysical Laboratory, Carnegie Institution
Guoyin Shen, HPCAT, Advanced Photon Source
Wolfgang Sturhahn, XOR, Advanced Photon Source
Yanbin Wang, GSECARS, Advanced Photon Source
Russell J. Hemley, Geophysical Laboratory, Carnegie Institution

Local Organizing Committee:

Haozhe Liu, HPCAT, Advanced Photon Source
Veronica O'Connor, HPCAT, Advanced Photon Source
Michael Lerche, XOR, Advanced Photon Source

Contact information:

Email: hp-workshop@hpcat.aps.anl.gov

Tel: 630 252 0479

Fax: 630 252 0496

Registration deadline: April 21, 2006
Accommodations at Argonne Guest House deadline: April 10, 2006

Workshop website: <http://www.hpcat.aps.anl.gov/2006workshop1/Home.htm>



High Pressure Collaborative Access Team